

Abstract of the Disclosure

As a preferred embodiment, a process target is disposed at the other side of the earth electrode from the active electrode. The process target is supported, being electrically insulated from the bottom of a chamber and

5 connected to an electrically conductive path. The electrically conductive path is grounded through a resistor and an auxiliary power supply. A potential of the process target is set at a predetermined potential, for example a minus potential, by the auxiliary power supply and a process gas is introduced into the chamber to keep a vacuum degree of the order of 100 Pa therein and to apply a voltage

10 to the active electrode from a power supply, whereby a discharge occurs between the active electrode and an earth electrode to generate a plasma and the plasma acts on the process target to clean and activate a surface of the process target.